Editorial

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Post-1994 the South African higher education system was expected to be transformed from being elitist, fragmented, and racially discriminative to a non-racial, equitable system where there is meaningful equal opportunity for all. This was to be achieved through *inter alia* the implementation of legislation such as the South African Qualification Authority (SAQA) Act of 1995, the Higher Education Act 101 of 1997 and its amendments, and the establishment of the Council on Higher Education (CHE). The Higher Education Act aimed to transform the sector in keeping with the principles underlying the nascent democracy. The CHE through its Higher Education Quality Committee (HEQC) was to ensure the quality of higher education institutions and programmes while SAQA through the National Qualification Framework (Act 67 of 2008) ensured that programmes are appropriate for the level placed on the framework and provides for articulation pathways. Undoubtedly, there have been many gains. The restructuring of the higher education landscape has taken place and the level and quality of programmes is assured throughout the system.

While there has been a considerable increase in widening access to higher education, there has not been the concomitant throughput rates and, arguably even more worryingly, less take up of employment of graduates. This is despite a plethora of policies and mechanisms through which funding was made available to support disadvantaged students to be successful in their studies through, for example, extended curriculum programmes, and student academic support. Political and scholarly debates continue on how best to advance transformation.

Along with the social justice and inclusion imperatives for access with success, South African policy makers and educators need to be cognisant of the global geo-political and economic transformations occurring; i.e. the Fourth Industrial Revolution. This can be seen in the exponential innovations in technologies and the disruptive impact these are already having on jobs and businesses. This can only increase.

Policymakers in all areas of government need to anticipate the challenges. Nowhere is this more urgent than in education. It is apparent that there needs to be a focused examination of the education that is being offered to the children and youth of South Africa; what is offered and how. In this volume of the *IJTL* 14(2) these key pressing issues are addressed. They range from the need for change in curricula and delivery to meet the challenges of the Fourth Industrial Revolution in 21st century South Africa, to problems of high levels of graduate unemployment, to ways in which teachers need to reflect on their methods of delivery and make changes so that students have a better learning experience.

In the first article, the authors build a thorough and cogent case for an overhaul of higher education both at system and sector levels. They argue for the need for reconceptualising the curricula and teaching methods

so that graduates are equipped to meet the challenges of the turbulent times ahead as the Fourth Industrial Revolution gathers apace. This in turn means that the current legislative and regulatory framework within which higher education operates needs to be reviewed and revised to allow for flexible, responsive curricula not bound by old classifications and lengthy out-of-date processes.

The next three articles delve into different aspects of programme delivery. In the first of these, the author examines the use of teaching portfolios as a means to improve teaching and thereby student learning. In a qualitative research study, she investigated the extent to which faculty understand the role that the use of reflective teaching portfolios can play in enhancing teaching and learning. Her findings showed that much more needs to be done in academic development programmes to raise awareness of teaching portfolios as an enhancement tool for student learning. In the following article, the authors investigate the reasons for ICT graduate unemployment and make a number of recommendations of which developers of ICT curricula need to take note. In the last article in the higher education cluster, the author explores through a case study academics' preferred sources to obtain information for their research. It is expected that the findings can be used by library professionals in the university to fulfil the needs of faculty.

The following four articles are concerned with teaching and learning in the school sector. In the first, the author deals with the often seemingly intractable problem of the medium of instruction for African children which is not in their mother tongue. This has resulted in lengthy and ongoing debates which crosses the political, sociological and educational arenas amongst others. The authors explore the concept of 'translanguaging' before going on to report on case studies carried out in four schools. They found that translanguaging has been used in science and mathematics classrooms in bilingual classrooms with positive results. In the following two articles, the authors deal with STEM subjects in schools and how to ensure learner understanding. The first of these reported on a qualitative study which explored the extent to which Grade 12 learners in trigonometry had moved from the action stage in solving problems to the concept stage. Their study showed that the majority of learners had not developed the object conception. The authors then offer a genetic decomposition for the solution to triangles tool which, if implemented, should contribute to improved learner performance. In the next article, the authors conducted a qualitative study on the teaching of mathematics in five rural schools in South Africa. The article examines the data gained from Video-Stimulated Recall Interviews (VSRIs). Like the reflective teaching portfolios article mentioned above, this enables reflection on teaching and changes in delivery can be made as a consequence.

In Practitioners' Corner, the author focuses on support strategies for foundation phase teachers with respect to the implementation of inclusive education in schools in line with national policy statements. The research shows that these are not sufficient to provide the support the class teacher needs. A range of support strategies are recommended.

Doctoral Corner comprises abstracts of recently awarded doctoral degrees. These cover concerns ranging from employability to curriculum and pedagogy at higher and basic education levels. The publication of abstracts alerts researchers and practitioners to new research in their areas of interest.